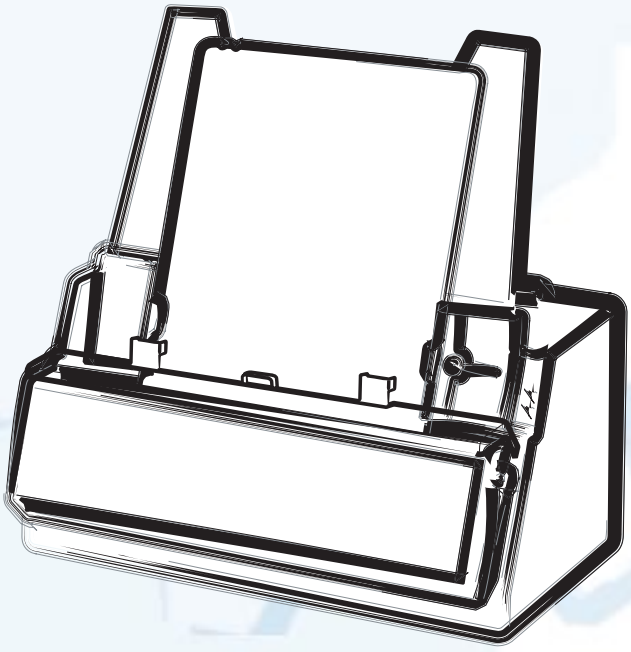
MICROTEK

MII-900plus

NDT/RT Film Digitizer
User's Manual



Preface

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Disclaimer

The contents of this manual have been checked carefully for accuracy, and every effort has been made to ensure that there are no errors. However, Microtek makes no guarantee as to the accuracy of the contents of this document and reserves the right to make changes to the contents without prior warning.

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FCC Compliance Statement

This equipment (Model: MSS-2400XU2L) has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note: A shielded Hi-Speed USB interface cable with ferrite core installed on the film digitizer connector end must be used with this equipment.

Caution: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CE Compliance Statement

This device complies with CE Certification pursuant to
EN 55011:2007 + A2:2007
EN 60601-1-2:2007

WEEE Compliance Statement

Microtek International, Inc. operates under full compliance with the WEEE Directive. Among the requirements of the Directive are the marking of any applicable equipment placed in the EU market with the WEEE symbol, a crossed out wheeled bin as shown at left; demonstration of the implementation of a take-back program; and meeting recycling targets.

ISO Compliance Statement

Comply with the requirements of the international quality standard
ISO 9001:2000 and ISO 13485:2003

Safety Precautions

Before using your digitizer, read the following safety guides carefully, which detail the proper operation of the digitizer and its accessories to prevent injuries or damage to users or equipment.

Meanings of Symbol Signs

CAUTION

This indicates hazardous situation which, if not payed attention, could result injury or damage to users or equipment.

WARNING

This indicates hazardous situation which, if not payed attention, could result serious injury or death to users.

Power Supply:

- Use a power source only with a power rating specified on the marking label.

- Ensure to turn off the power of each device before connecting or disconnecting the cables.

- Insert the plug completely into the outlet, as a loose connection may cause arcing and result in fire.
- Ensure to hold the plug or connector to disconnect the cable; otherwise, if you pull the cable only, it may damage the core wire and result in fire or electric shock.

- Place and route the power supply cord such that it is not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the cord near the power plugs, convenience receptacles, and at the point where it exits from the outlet.

- When the digitizer is left unattended and unused for long periods of time, unplug it from the wall outlet.

Moving and Storing the Film Digitizer:

- Always ensure that the digitizer is stored properly before shipping or moving it. Quick stops, excessive force, and uneven surfaces may cause the product to overturn when moving.

- Do not hit or drop the digitizer. The digitizer may be damaged if it receives a strong jolt, which may result in fire or electric shock if the digitizer is used without being repaired.

- Do not place the digitizer on any slippery, slanted, or unstable surface. The product may slide or fall, causing serious injury to people as well as serious damage to the product.

- Do not use the digitizer near water. Never spill liquid of any kinds on the product, or it may result in electric shock or other hazards.
- This digitizer should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
- Do not store the digitizer in which it may be exposed to direct sunlight.

Using the Digitizer

- Before using the digitizer, make sure the area of the front cover is clear from any objects that may cause jams inside.
- When using the digitizer, if your hairs have been jammed into the front cover of the digitizer, turn off the power switch immediately. Do not attend to remove your hairs from the front cover when the digitizer is still turned on.

Maintenance and Service:

- When the digitizer is going to be cleaned, ensure to turn off the power of each device and unplug the power cable from the AC outlet.
- When you need a repair service, unplug the digitizer from the power outlet and consult qualified service personnel.
- When replacement parts are required, use replacement parts that are specified by the manufacturer or have the same characteristics as the original parts.
- For safety reasons, ensure to inspect the device before using it. In addition, carrying out a regular inspection at least once a year.

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Knowing about Your Film Digitizer

The MII-900 Plus is a sheet-fed film digitizer, which is specifically designed for the use of the RT X-ray film scanning. The MII-900XL can capture details in bright and dark areas of industrial RT X-ray films and provide the professionals a convenient method to digitize the physical originals for the electric data storage, saving maintenance time and storage space enormously.

Features of the MII-900 Plus

The MII-900 Plus comes with several important features, including the following:

- Premium Image Quality — With a high resolution of 2400 dpi, a dynamic range of 4.7 Dmax, and the 16-bit grayscale, the MII-900 Plus allows users to get better image details in just seconds.
- Energy-saving LED light source — Adopting LEDs as the light source, when the digitizer is detected by the system, there are no requirements for any warm-up time before carrying out the scan, which boots your productivity and reduces energy costs amazingly. With its stable performance, the image quality will remain consistent even after used for a certain period of time.
- Support various sizes of X-ray films - The MII-900 Plus covers the scanning of all standard RT X-ray film sizes from 2.5" x 2.5" to 14" x 52", which offers more flexibility to digitize X-ray films.
- Exclusive Film Holders — These specially designed industrial film holders are used to hold films in place. By loading industrial film holders with loaded films before scanning, you can ensure perfect alignment of your scanned images and achieve consistent scans. Two types of industrial film holders provided, they are 8.5" x 4.5" and 12" x 3 1/3".
- Fast scanning speed — The MII-900 Plus increases your productivity with fast scanning speed of 18 seconds or less at 300 dpi for a grayscale scan of 14" x 17" film.
- Hi-Speed USB (USB 2.0) port — Hi-Speed USB (USB 2.0) is capable of high data transfer rates of up to 480 Mbit/sec.
- Easy to operate, clean and maintain — The MII-900 Plus requires virtually no routine maintenance and no daily cleaning, which is ideal for radiographic inspection industry.
- Microtek ScanWizard Industry software — The friendly user interface of ScanWizard Medi converts X-ray films in a computer readable format, offering an easy and quick access and management.
    - — Auto crop: This feature automatically crops the scan frame to fit the size of the original film when scanning film with provided film holders.

— Auto density: This feature enables the digitizer to optimize the image density automatically when scanning a X-ray film. It automatically defines the lightest and darkest pixels in a scanned image and then redistribute the intermediate pixel values proportionately.

— Customized exposure: This manual setting tool allows you to customize an exposure time for the scanned image. It enhances the visibility of extreme dark film, delivering a better scanning result and improving the quality of saved files.

System Requirements

In order to use your MII-900 Plus, your computer must satisfy the following system requirements:

- CD-ROM drive (for installing software)
- Color display with 24-bit color output capability
- 4GB RAM or more
- Pentium IV PC or higher with Hi-Speed USB (USB 2.0) port
- Windows XP, Windows 7 (64-bit) and Windows 8 (64-bit)

Unpacking Your Film Digitizer

Looking for Damage

While unpacking your digitizer, inspect the shipping carton for any signs of mishandling or damage. The digitizer's packing carton and padding material have been carefully chosen to prevent damage to the unit in shipping and can withstand a reasonable amount of pressure.

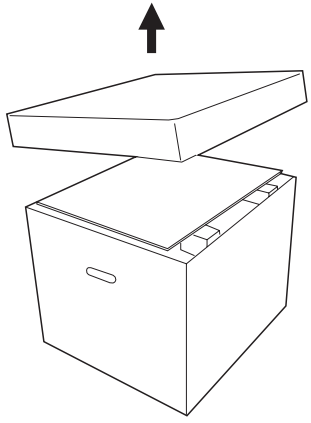
After unpacking your digitizer package, refer to the later section to ensure that you received all of the parts necessary for digitizer setup. If there are any damaged or missing parts, notify the shipper immediately or contact customer service.

NOTE: Save the carton and all packing materials. If you need to ship the digitizer later, it is recommended that you **should** repack it using the original wire ties, plastic bags, foam supports and cartons, which protects your digitizer from unnecessary damage. Refer to the later section "How to Repack Your Film Digitizer for Shipping" for the detail.

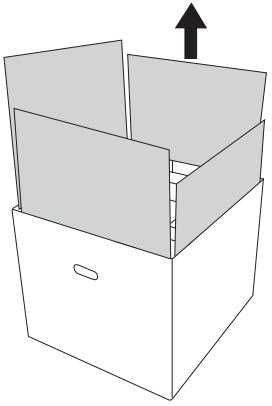
Unpacking Package Contents

After unpacking the shipping carton, follow the steps shown below to take out your digitizer and other accessory components.

1. Ensure that you put your shipping carton toward the right direction. Then, lift up the top cover.

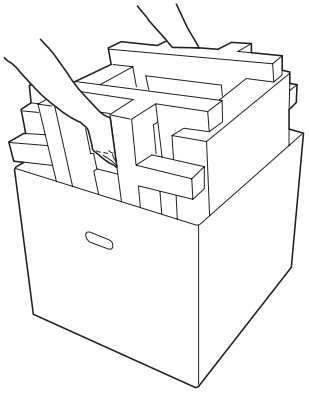


2. Remove each cardboard from four sides of the shipping carton.

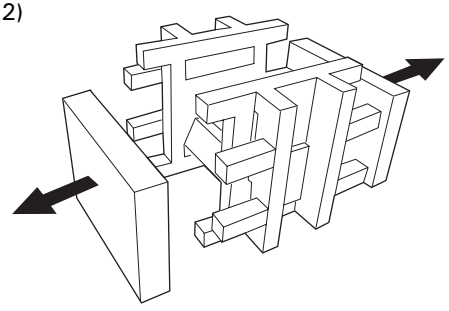


3. With both hands, hold the two sides of foam supports and then lift up the foam supports firmly from the carton. Before putting down the package on a steady surface, do not go off either of hands from holding the foam supports.

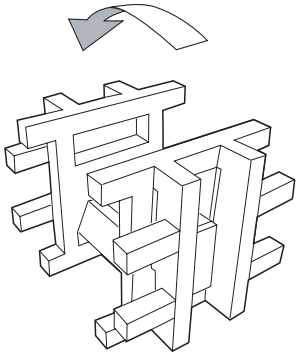
   Note: The package of the contents is heavy (almost 33 pounds). Due to the heavy weight of the package (about 33 pounds), make sure you can handle it properly before removing it from the carton.



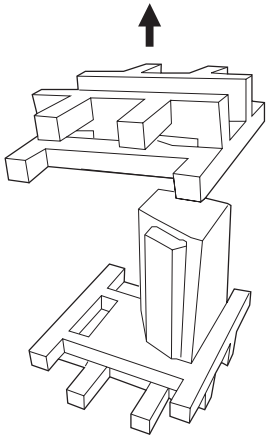
4. Remove two accessory boxes (1 and 2) from the foam supports.



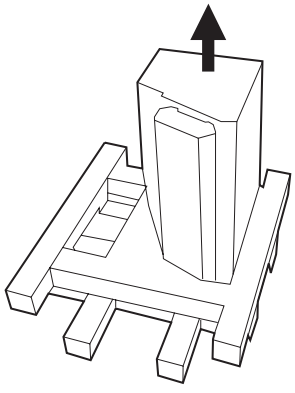
5. Turn over the foam supports and make them stand vertically.



6. Lift up the upper foam support.

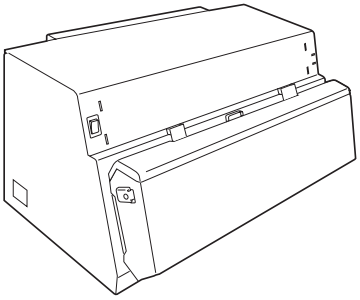


7. Pull out the digitizer from the bottom foam support. Then, remove the digitizer from the wrapped plastic bag.

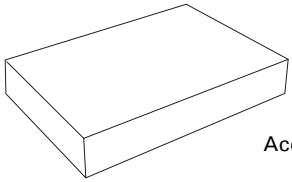


Package Contents

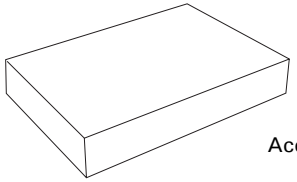
After you have unpacked your digitizer package, please check for the major components listed below.



MII-900 Plus Film Digitizer

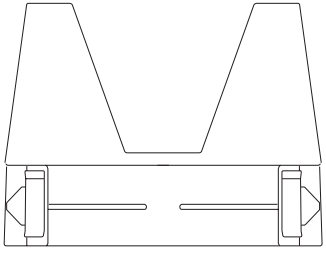


Accessory Box 1

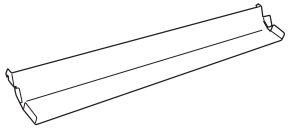


Accessory Box 2

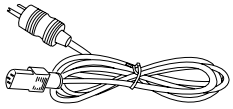
Accessories for Box 1



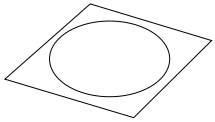
Feed Tray



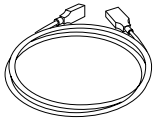
Output Guide



Power Cord



CD

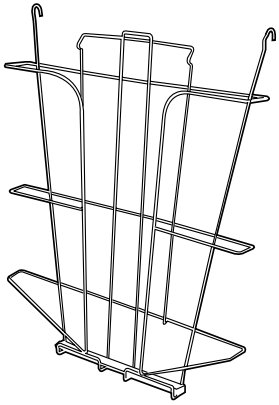


Hi-Speed USB Cable

Accessories for Box 2

8.5" x 4.5" Holder

12" x 3 1/3 Holder

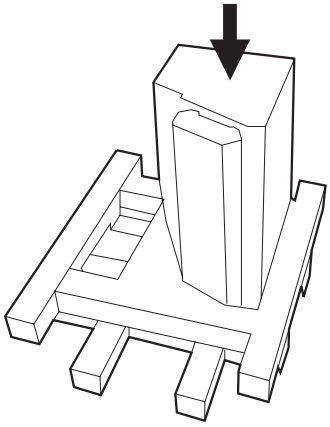


Output Basket

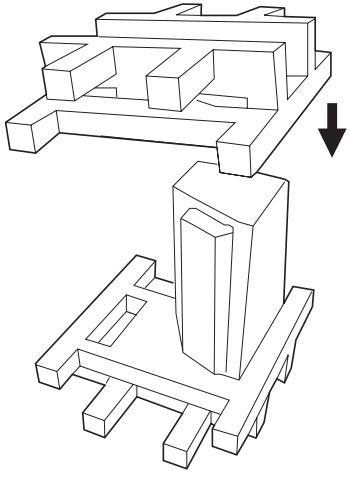
How to Repack Your Film Digitizer for Shipping

To ship back your MII-900 Plus for repairing, maintenance services, or other reasons, in order to not damage your MII-900 Plus, it is strongly recommended that using the original carton and other packing materials. Follow the steps below to repack your MII-900 Plus correctly.

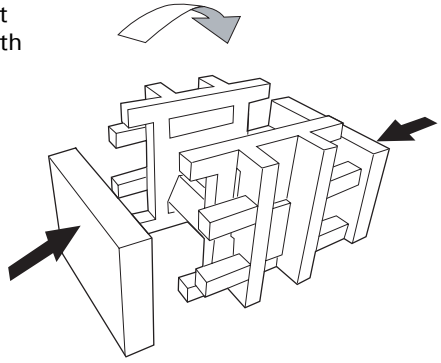
1. Wrap the digitizer with the plastic bag, and then insert it into one foam support.



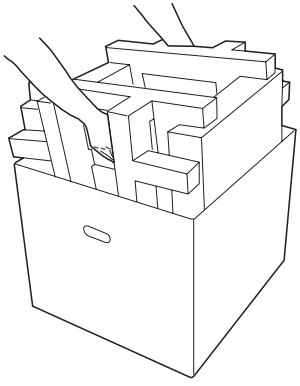
2. Cover down the other foam support on the tops of the digitizer.



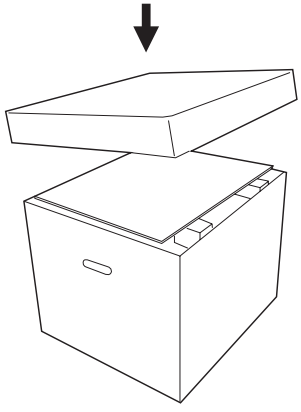
3. Turn over the foam supports and insert other two accessory boxes into the both sides of the foam supports.



4. With both hands, hold the two sides of foam supports firmly and then insert them into the shipping carton.

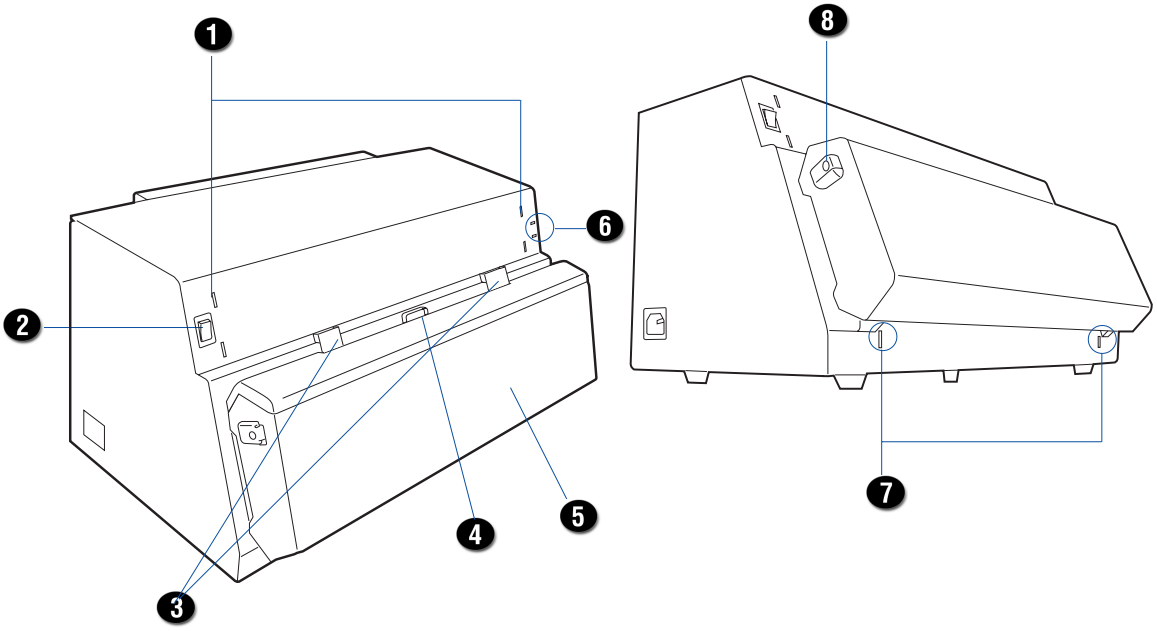


5. Close the top cover of the shipping carton and seal it with tape.



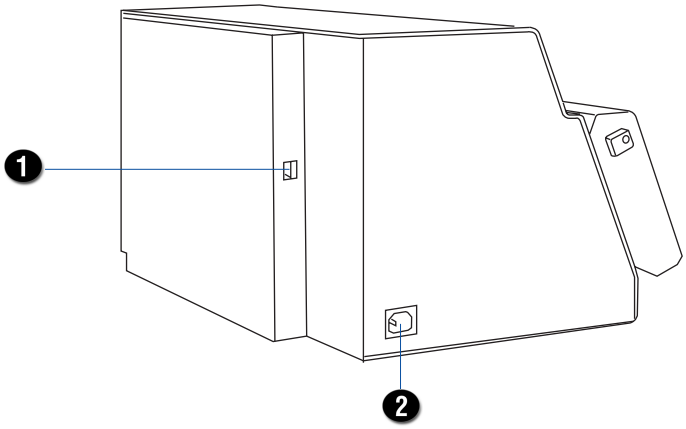
Taking a Closer Look

Front / Top / Bottom View



No.	Names of Parts	Functions of Parts
1	Feed Tray Holes	Uses to hook the Feed Tray onto the digitizer.
2	Power Switch	Turns the digitizer on or off.
3	Fastenings of Light Shield	Uses to fasten the Light Shield into Guide Arms on the Input Tray.
4	Hook of Light Shield	Uses to pull the Light Shield up.
5	Front Cover	Uses to cover inner components of the digitizer.
6	Green/Orange LEDs	Indicates the status of the digitizer. For more details, refer to the “Troubleshooting” section of this manual.
7	Output Tray Holes	Uses to hook either the Output Guide or the Output Basket onto the digitizer.
8	Release Buttons	Releases the front cover to open the lamp holder. There are two Release buttons located on each side of the front cover. Press the buttons down simultaneously to release the front cover.

Rear / Side View



No.	Names of Parts	Functions of Parts
1	Hi-Speed USB Port	Connects the Hi-Speed USB (USB 2.0) cable to the computer.
2	Power Connector	Connects the digitizer to the power cord.

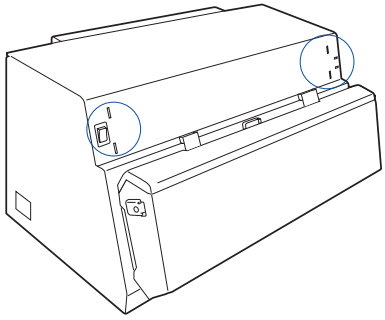
Assembling Your Film Digitizer

Installing the Feed Tray

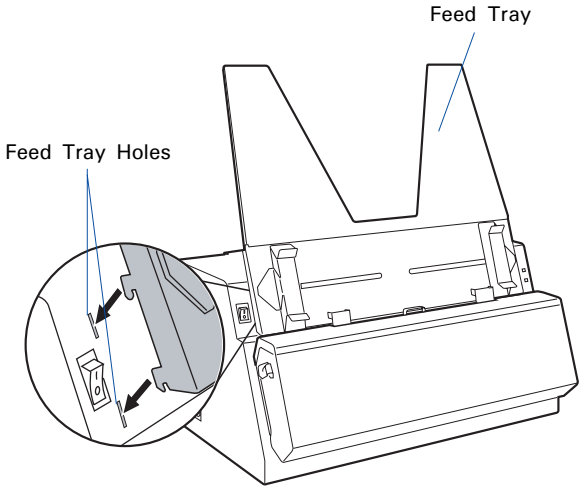
Coming with your digitizer, there is a separated Feed Tray which holds the X-ray films to be fed into the digitizer. Before using the Feed Tray with your digitizer, you need to assembly it onto the digitizer.

Follow the instructions and graphs below to correctly install the Feed Tray.

1. Look for two sets of the Feed Tray Holes at both ends of the front-top of the digitizer.



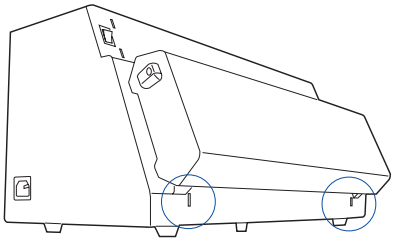
2. Insert and push down both sides of the Feed Tray into its compartment holes, making sure the Feed Tray snaps into place.



Installing the Output Tray

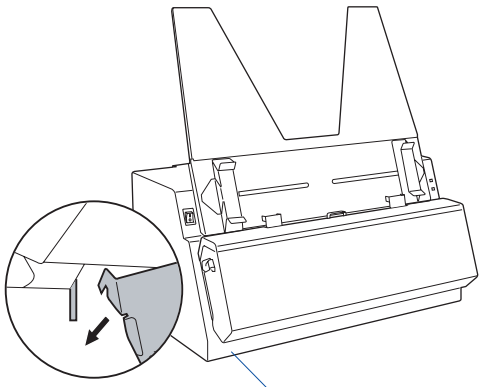
Coming with your digitizer, there are two kinds and separated Output Trays which store the stacked X-ray films which have been digitized. One of them is called Output Guide, used to guide the digitized materials staying on the table. The other is called Output Basket, used to store and keep the digitized materials in a basket. You may use only one of them as an output tray at a time. Before using them with your digitizer, you need to assembly them onto the digitizer.

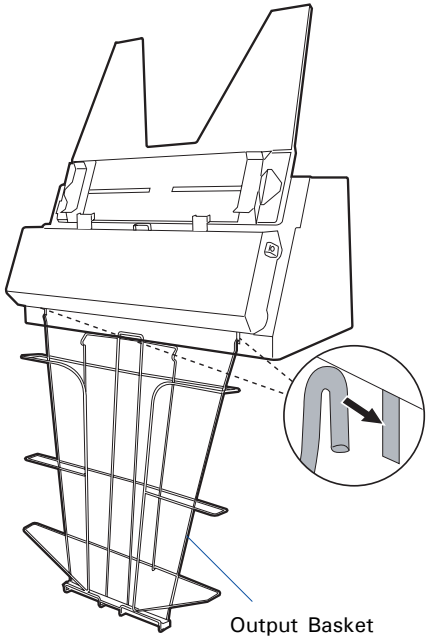
1. Look for two sets of Output Tray Holes at both ends of the front-bottom of the digitizer.



2. Insert and push down both sides of the Output Guide into its compartment holes, making sure the Output Guide snaps into place.

   Or, Insert and push down both sides of the Output Basket into its compartment holes, making sure the Output Basket snaps into place.





Installing Your Film Digitizer

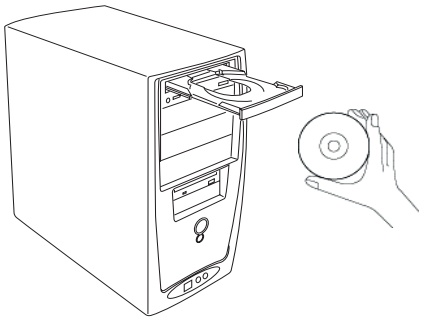
Installing the Software

Important: You must install software before connecting your digitizer.

Always close any open programs, and turn off Anti-virus utilities before installing software.

1. Turn on your computer.
2. Place the **Microtek CD** into your CD-ROM drive.
3. Follow the on-screen instructions to install the driver and software.

   NOTE: If the Microtek Software Installer screen does not come up automatically, double-click the following in succession: "My Computer"; the CD-ROM icon; then cdsetup.exe to start the installer program.

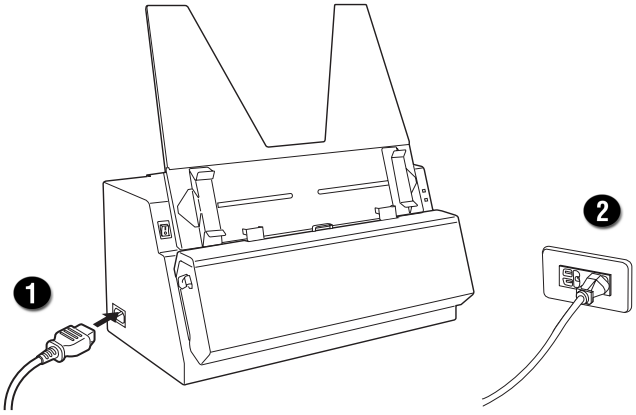


4. Click **EXIT** on the Microtek Software Installer screen when all the software have been installed.
5. Restart your computer.

Connecting the Film Digitizer

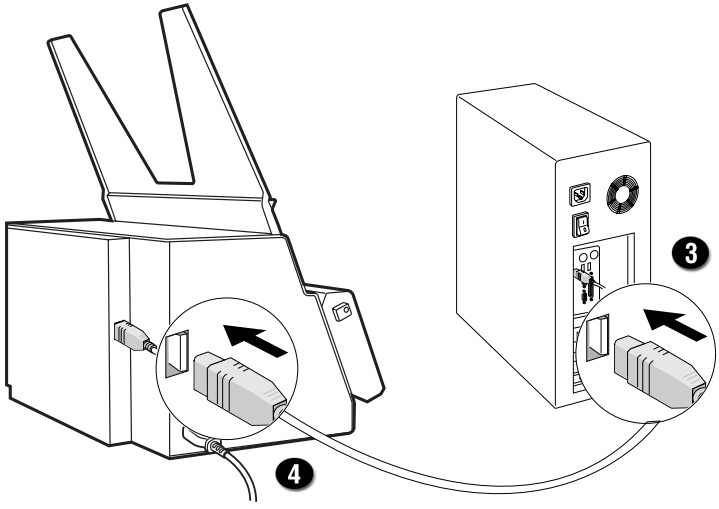
To the Power Cord

1. Connect the power cord to the left side of the digitizer.
2. Plug one end of the power cord into a wall outlet or other power source.

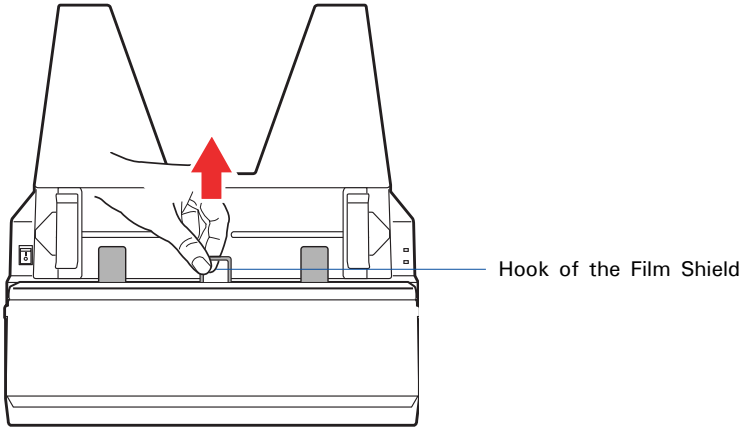


To the Hi-Speed USB Cable

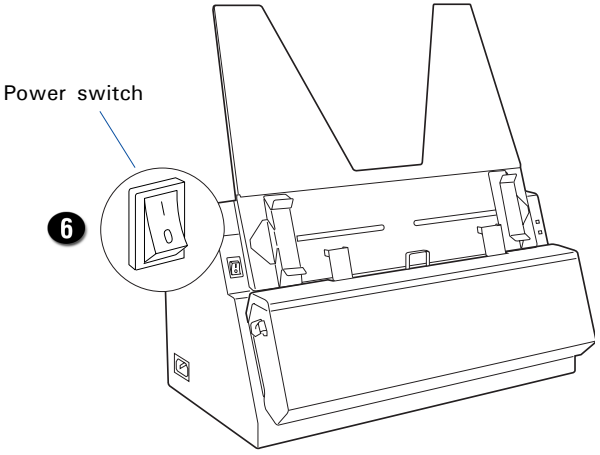
3. Connect one end of the Hi-Speed USB cable to your computer.
4. Connect the other end of the Hi-Speed cable to the digitizer's USB port, locating at the left side of the digitizer



5. Locate the hook of the Light Shield at the top of the Front Cover of the scanner. Pull it up to raise the Light Shield.



6. Turn the power switch at the front-left panel of the digitizer to “On”; once the scanner is detected by your system, the LED lights on the front panel will brighten, and the digitizer is ready to scan.



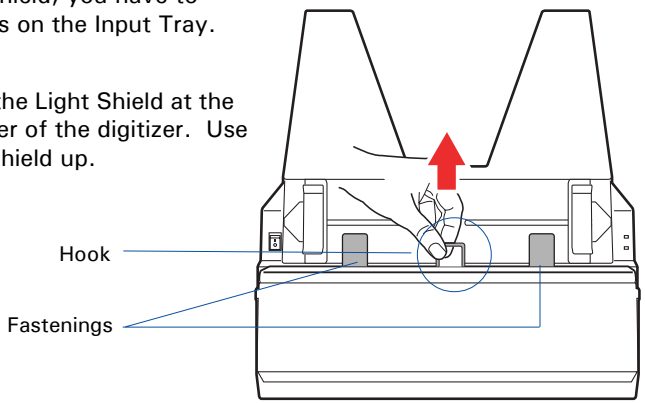
Using Light Shield to Digitize Industrial RT X-ray Film

A light shield is a tool equipped in your MII-900 Plus, used to block out unnecessary light when scanning. It can help to improve the dynamic range for final scanned images. However, the maximum limit for the width of the Light Shield is about 10.24 inches (26 cm). If the your scanned target is wider than the maximum limit of the Film Shield, please do not use the Light Shield.

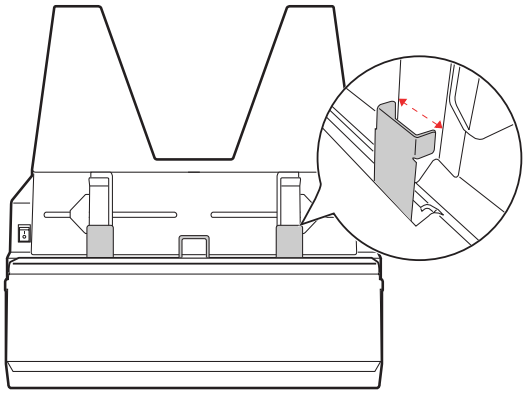
Attaching Light Shield into Guide Arms

Before using the Light Shield, you have to fasten it into Guide Arms on the Input Tray. Follow the steps below:

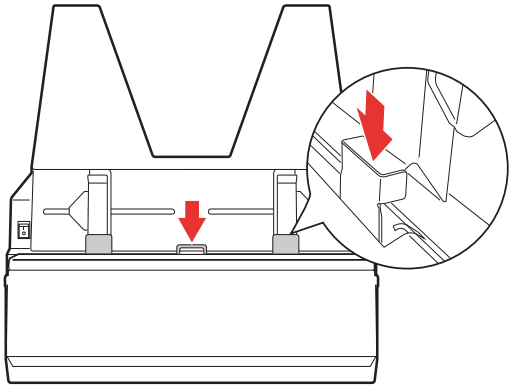
1. Locate the hook of the Light Shield at the top of the front cover of the digitizer. Use it to pull the Light Shield up.



2. Slide the two Guide Arms toward the Light Shield. Align the Guide Arms with the Light Shield properly.



3. Move down the Light Shield. Make sure that two fastenings of the Light Shield are attached to protruding parts at the bottoms of Guide Arms tightly. If the Light Shield and Guide Arms are jointed successfully, they can be moved together by sliding Guide Arms.



Positioning Industrial RT X-ray Film with the Light Shield

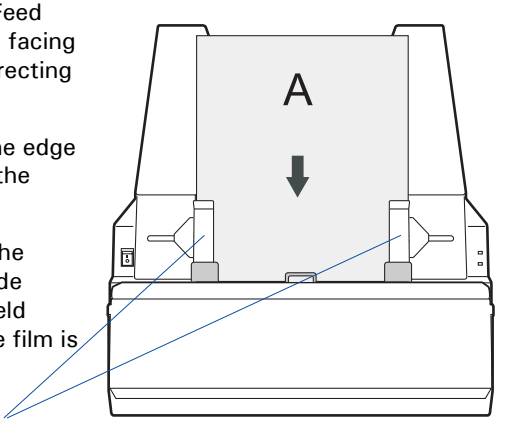
MII-900 Plus's Feed Tray can hold only one piece of X-ray film at a time. This section shows you how to position a single-sheet of X-ray film into the Feed Tray with the aim of the Light Shield.

1. Attach the Light Shield into Guide Arms before using it. Refer to the front sections “Attaching the Light Shield into Guide Arms” for the detail.

2. Load and insert the film into the Feed Tray, with the side to be scanned facing up and with the top of the film directing upwardly.

   Push the film into the tray until the edge of it touches the bottom edge of the Feed Tray.

3. Align the film with the center of the Feed Tray by sliding the two Guide Arms with the attached Light Shield toward the film if the width of the film is less than 10.24 inches.



Guide Arms with the attached Light Shield

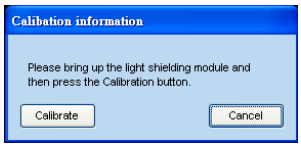
Scanning Industrial RT X-ray Films

ScanWizard Industry is a scanning software designed by Microtek for Industrial X-ray films scanning used for an industrial purpose. Its user-friendly interface enables you to easily start the scanning process and finish all the scan jobs. Refer to the ScanWizard Industry software manual for more details.

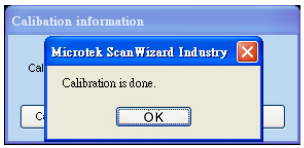
1. Follow the procedures for "Positioning Industrial RT X-ray Film with the Light Shield" to load the film into the digitizer's Feed Tray.

2. Launch ScanWizard Industry (either as a stand-alone by clicking the program icon, or by using the "File-Import" or "Scan" command from an application program).

   Note: If it is your first time to turn on the digitizer and to launch the program, if the Light Shield is not pull up, the program will prompt a window to remind you. Bring up the Light Shield and click the Calibration button. Then, the scanner will start to calibrate.

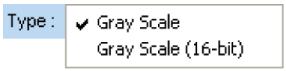

Calibation information
Please bring up the light shielding module and then press the Calibration button.
Calibrate
Cancel

   When the calibration is done, click the OK button to bring in main windows of ScanWizard Industry program.



3. Click the *Overview* button to perform a preliminary scan of the image, which will appear in the Preview window.

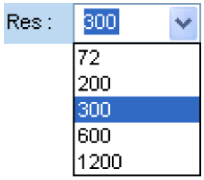
4. Select your image output type in the Type drop-down menu.



   – Select *Gray Scale* to scan the image in 8-bit grayscale. This is also the default setting of the software program.

   – Select *Gray Scale (16-bit)* to scan the image in 16-bit grayscale.

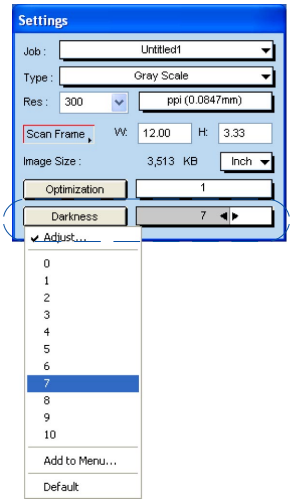
5. Select your desired image output resolution in the Resolution drop-down menu. The default setting is 300 dpi.



6. Select the *Scan Frame* tool from the Toolbar in the Preview window, and choose the area to be scanned by dragging a rectangle around it. You will see a flashing frame (marquee) around the selected area.

7. If necessary, click *Darkness* to choose a predefined exposure setting for the current scan job, enhancing the visibility of dark areas.

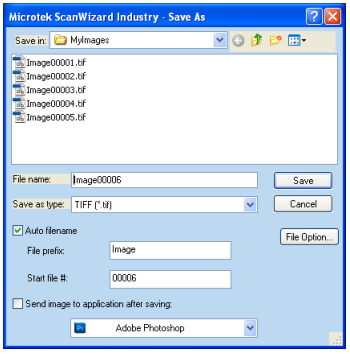
   If you want to customize an exposure setting for the current scan job, choose *Adjust . .*from the Darkness drop-down menu, and then point your mouse to its edit box. Choose a desired setting by clicking the left/right arrow from its available settings.



8. Click the *Scan* button on the control panel to start scanning.

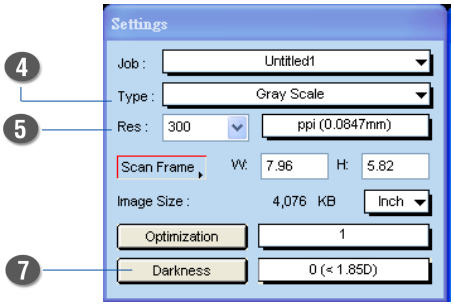
   - If ScanWizard Industry is launched as a stand-alone program, a window “Save As” dialog box will appear. Click the *Save* button; then, the scanned image can be saved into your selected folder or sent to your selected application.

     To view the scanned image, double click the “Industry Images” icon on your desktop (default folder assigned by the software), or retrieve it from your assigned folder.

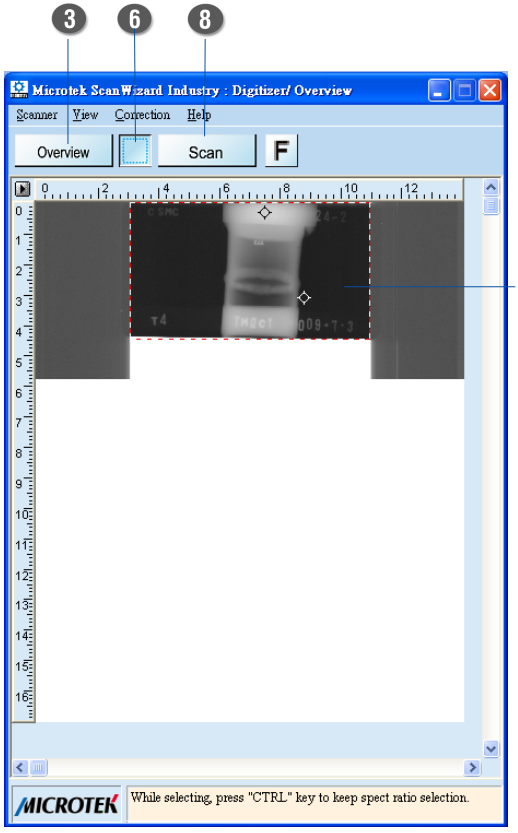


   - If ScanWizard Industry is launched as a Plug-In from an application program, the scanned image is delivered after the scan to your application, where the image can be saved, viewed, or printed further.

   Note: When scanning with the Light Shield, if the scan frame covers the area of the Light Shield, the selected area of the Light Shield will be cropped out automatically and will not appear in the saved image file. If the scanned image is too big (more than 200 MB), a message will appear on the screen to notify you that the selected area of the Light Shield will not be cropped out; instead, it will be filled with blanks.



Settings window



Scan frame (enclosed by red dotted lines)

Preview window

Using Film Holders to Digitize Industrial RT X-ray Film

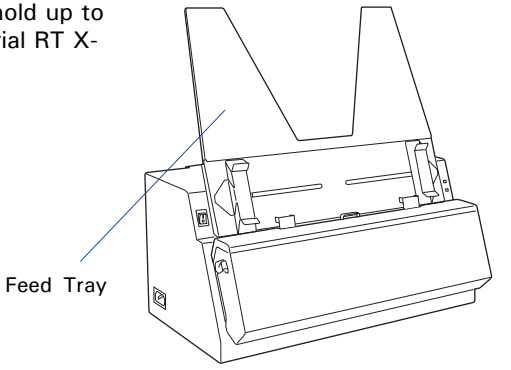
Come with the digitizer package, there are two types of holders – 8.5" x 4.5" Film Holder and 12" x 3 1/3" Film Holder. Use the holder that correctly matches the film size to be scanned. The use of the individual industrial film holder is explained in the succeeding pages of the manual.

Positioning Your Industrial RT X-ray Film

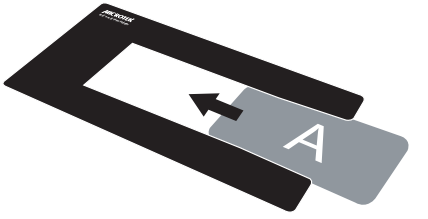
A. Using the 8.5" x 4.5" Film Holder

To scan 8.5" x 4.5" industrial film, use the 8.5" x 4.5" Film Holder, which can hold up to one pieces of the 8.5" x 4.5" industrial RT X-ray film at a time.

1. Install the Feed Tray onto your digitizer before using it. Refer to the front sections “Installing the Feed Tray” for the detail.



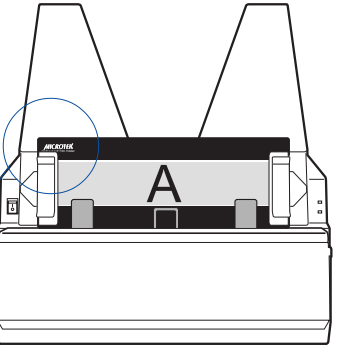
2. Load the film face up inside the holder. Slide the film along the slot of the holder until the film is fully loaded.



3. Load and insert the 8.5" x 4.5" Film Holder with loaded film into the Feed Tray, with the side to be scanned facing up and with the top of the film directing upwardly.

   Push the holder into the tray until the edge of it touches the bottom edge of the Feed Tray.

   Make sure that the Light Shield has been pull up.

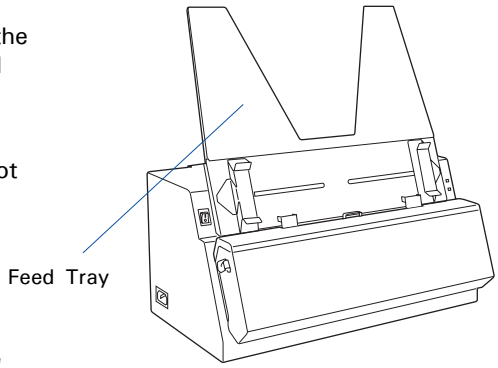


Microtek logo

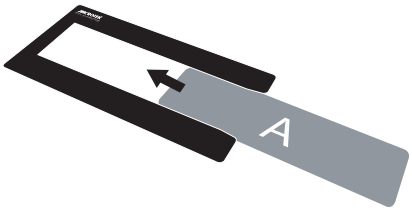
B. Using the 12" x 3 1/3" Film Holder

To scan 12" x 3 1/3" industrial film, use the 12" x 3 1/3" Film Holder, which can hold up to one piece of the 12" x 3 1/3" industrial RT X-ray films at a time.

1. Install the Feed Tray onto your digitizer before using it. Refer to the front sections “Installing the Feed Tray” for the detail.
2. Load the film face up inside the holder. Slide the film along the slot of the holder until the film is fully loaded.

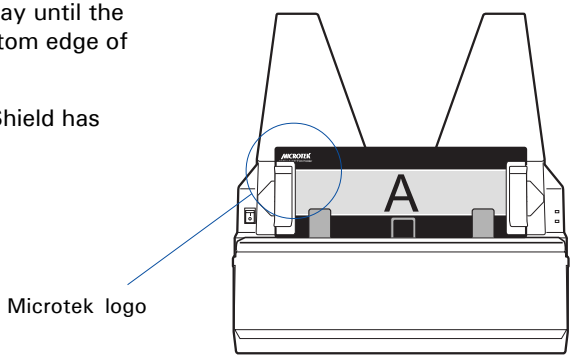


3. Load and insert the 12" x 3 1/3" Film Holder with loaded film into the Feed Tray, with the side to be scanned facing up and with the top of the film directing upwardly.



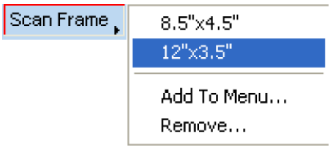
Push the holder into the tray until the edge of it touches the bottom edge of the Feed Tray.

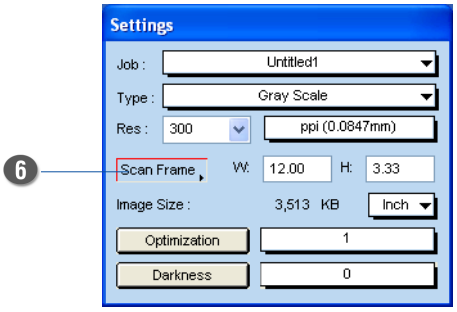
Make sure that the Light Shield has been pull up.



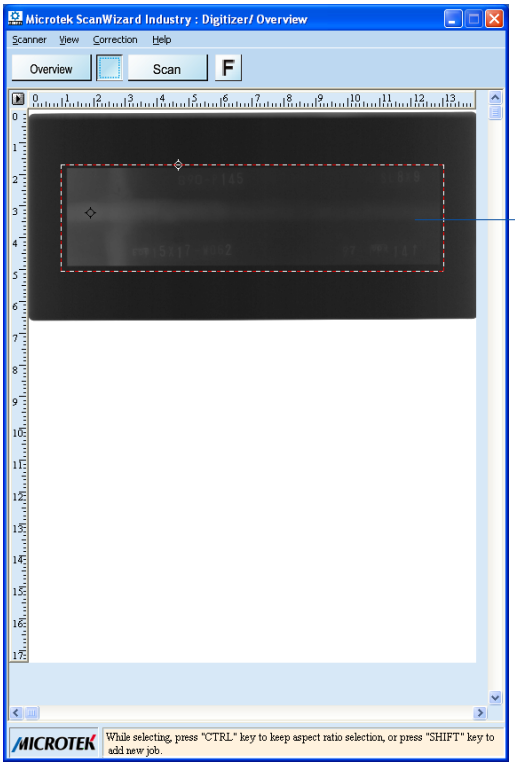
Scanning Industrial RT X-ray Films

1. Follow the procedures for “A. Using the 8.5" x 4.5" Film Holder” to load the industrial film into the digitizer's Feed Tray.
2. Follow the procedures (steps 2 through 8) for “Scanning Industrial RT X-ray Films” to launch the ScanWizard Industry software, to specify your scanning requirements and to start scanning.
   - In step 6, instead, select the correct holder size to be used and scanned in the Scan Frame drop-down menu. You will see a flashing frame (marquee) around the selected area.





Settings window



Scan frame (enclosed by red dotted lines)

Preview window

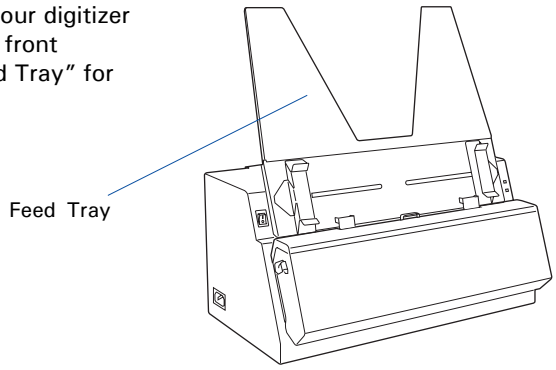
Digitizing Industrial RT X-ray Films in Other Sizes

If your scanned target cannot be used together with the Light Shield (wider than 10.24") or the supplied film holders, the MII-900 Plus also allows you to scan various sizes of industrial RT X-ray films up to 14" x 52".

Positioning Industrial RT X-ray Film

MII-900 Plus's Feed Tray can hold only one piece of X-ray film at a time. This section shows you how to position a single-sheet of X-ray film into the Feed Tray.

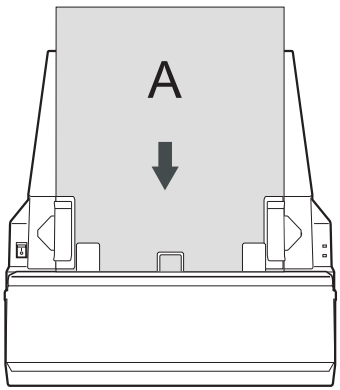
1. Install the Feed Tray onto your digitizer before using it. Refer to the front sections “Installing the Feed Tray” for the detail.



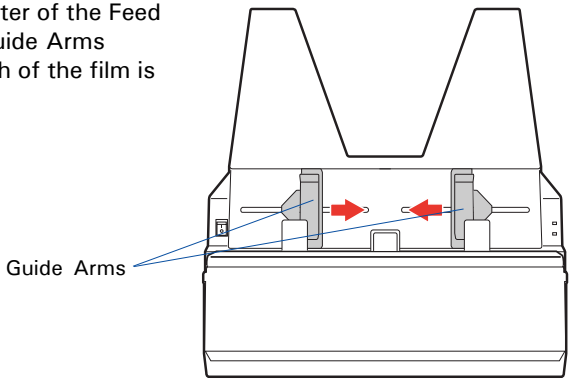
2. Load and insert the film into the Feed Tray, with the side to be scanned facing up and with the top of the film directing upwardly.

   Push the film into the tray until the edge of it touches the bottom edge of the Feed Tray.

   Make sure that the Light Shield has been pull up.



3. Align the film with the center of the Feed Tray by sliding the two Guide Arms toward the film if the width of the film is less than 14 inches.

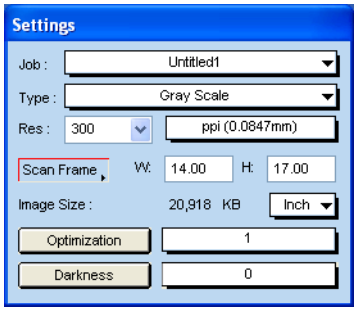


Note: There are several precautions and reminders about using the digitizer correctly. Please refer to the section as below for the detail.

- The Feed Tray can handle X-ray films of the following sizes:
  - Width: 2.5" to 14" (63.5 to 355.6 mm)
  - Length: 2.5" to 52" (63.5 to 1320.6 mm)
  - Sheet Feed: Single sheet per time
- If the film are torn, curled, or wrinkled, do not put them into the Feed Tray to scan, because they may cause film jams.
- Remove clips or staples before placing the film into the Feed Tray. DO NOT use the digitizer to scan your X-ray film with clips or staples because they may cause film jams or damage the digitizer.

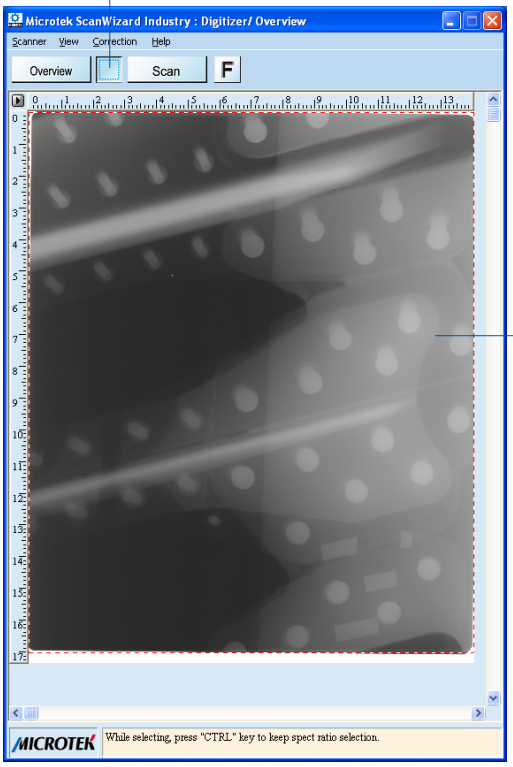
Scanning Industrial RT X-ray Films

1. Follow the procedures for “Positioning Industrial RT X-ray Film without Film Holders” to load the industrial film into the digitizer's Feed Tray.
2. Follow the procedures (steps 2 through 8) for “Scanning Industrial RT X-ray Films” to launch the ScanWizard Industry software, to specify your scanning requirements and to start scanning.



Settings window

Scan Frame tool



Scan frame (enclosed by red dotted lines)

Preview window

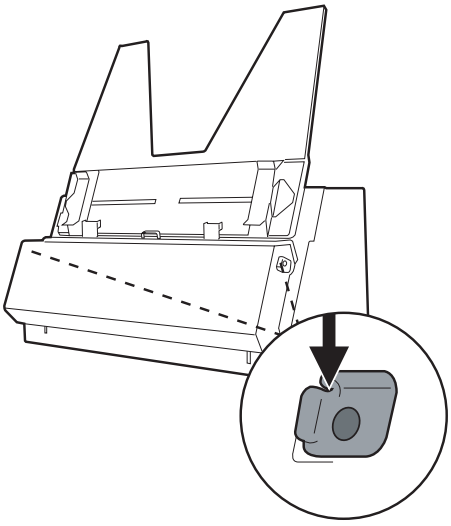
Care and Cleaning

To ensure optimal performance from the MII-900 Plus, it is important to clean several critical parts of the digitizer on a regular basis.

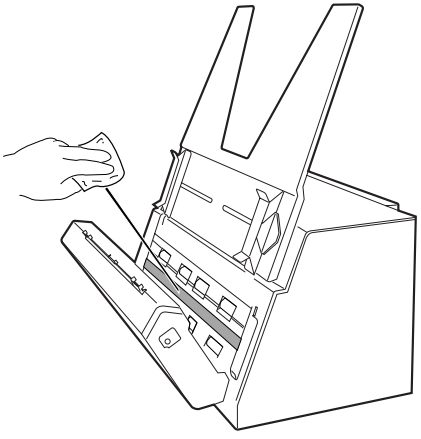
Cleaning the Glass Surface on the Digitizer

1. Push down two Release buttons at both sides of the front cover of the digitizer and open the front cover.

   When opening the front cover, support the both sides of the front cover with your hands, avoiding suddenly falling down of the front cover.



2. Using a soft and nonabrasive, lint-free cloth, clean the inner glass surface on the digitizer.

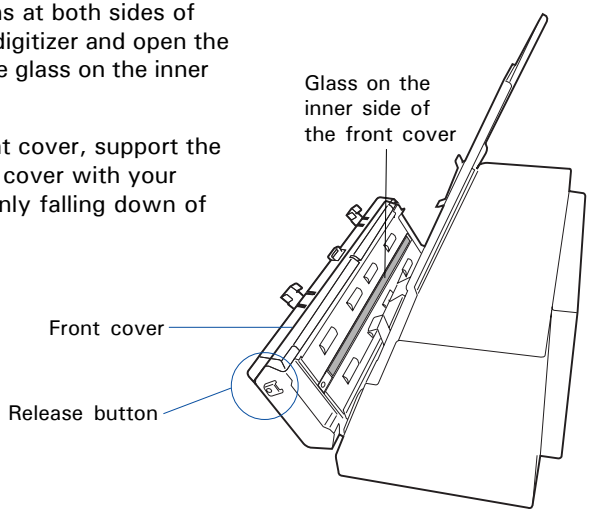


Cleaning the Glass and Components on the Front Cover

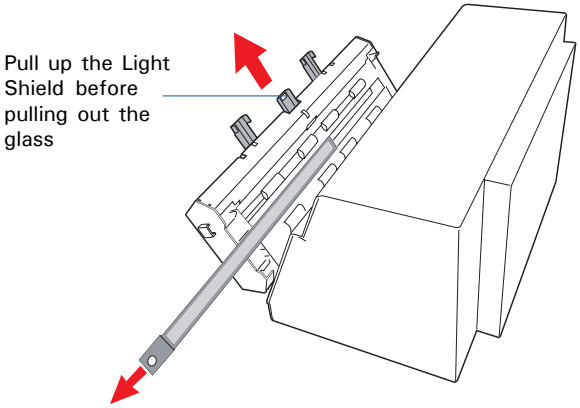
There is one more piece of glass located on the inner side of the front cover of the digitizer. To clean it, please remove it from the front cover first.

1. Push down two buttons at both sides of the front cover of the digitizer and open the front cover. Locate the glass on the inner side of the front cover.

   When opening the front cover, support the both sides of the front cover with your hands, avoiding suddenly falling down of the front cover.

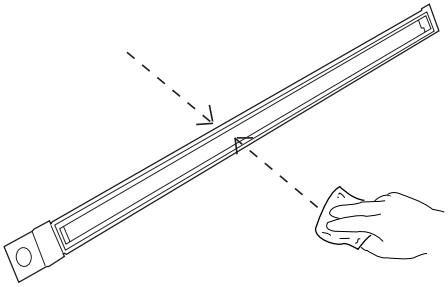


2. Find a perforation at the left of the glass. Use it to pull out the glass, shown as in the graph below.

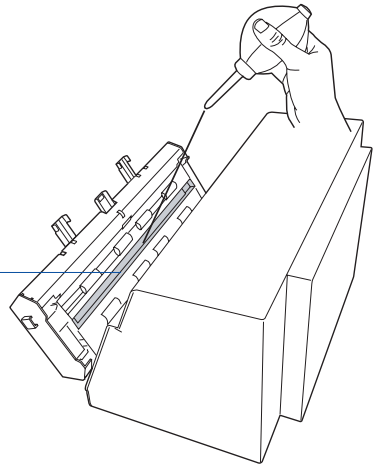


Note: Before pulling out the glass, make sure that the Light Shield has been pull up.

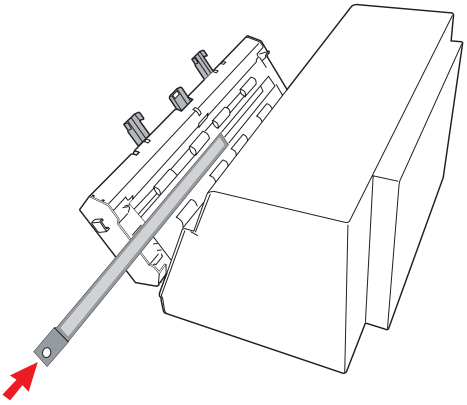
3. Use the cleaning cloth come with your package or a soft and nonabrasive, lint-free cloth to clean both sides of the glass.



4. Next, use a dust blower or a lint-free cloth to clean components in the hollow part beneath where the glass is stored.



5. After cleaning the glass and the components, along the tracks, push back the glass surface until it snaps into place.



Cleaning the Rollers

Prolonged used of the digitizer may result in accumulation of ink and other residue on the feeder's rollers, affecting their efficiency. Clean the rollers periodically to maintain performance.

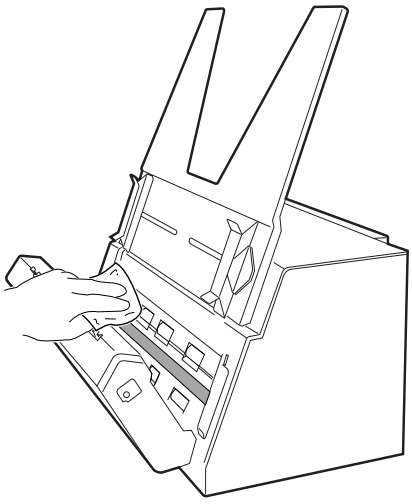
Rollers are found in two areas of the MII-900 Plus: Directly on the digitizer, and on the side of the front cover.

To clean the two sets of rollers:

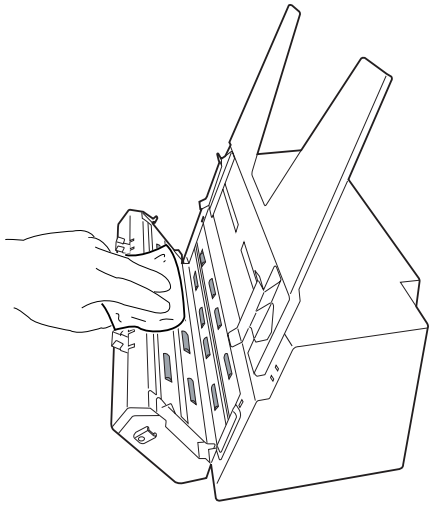
1. Push down two buttons at both sides of the front cover of the digitizer and open the front cover.

   When opening the front cover, support the both sides of the front cover with your hands, avoiding suddenly falling down of the front cover.

2. Clean the rollers with a lint-free cloth or a swab moistened with alcohol or ECO cleaner, as shown in the graphic below. Remember to clean the rollers on the digitizer and the front cover at the same time.



Rollers on the digitizer



Rollers on the front cover of the digitizer

Maintenance

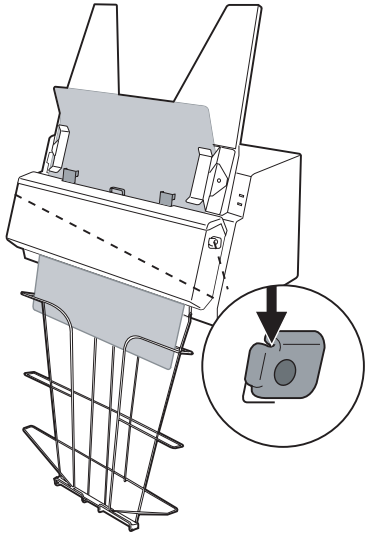
After usage for a period of time, the parts inside your digitizer, such as rollers or light source, may become worn out, and a problem such as insufficient light supply may occur. In this cases, contact your local dealers or wholesales for the maintenance services.

Note: Your digitizer need a professional to perform the required service or maintenance. Do not attend to fix or perform the maintenance by yourself, or it may cause dangers to you or the digitizer.

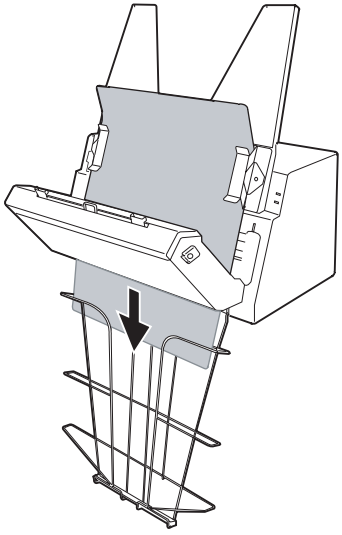
Appendix

Fixing Film Jams

1. Open the front cover by pressing the Release buttons on the both sides of the front cover.



2. After opening the front cover, let the jammed film fall into the output basket and then remove it from the output basket.



Note: To remove the jammed film from the digitizer, you have to open the front cover first. Otherwise, your film may be damaged if they are forcedly removed.

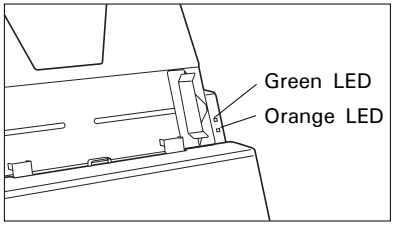
Troubleshooting

The LEDs on the front-right panel of the digitizer indicate the status of the digitizer.

All Off - Digitizer is off

Flashing Orange - Starting up or scanning

All On - Ready to scan



First, make sure that you have followed steps as described in the "Assembling Your Film Digitizer" section of this document. Then if your problem is listed here, try the suggested solution.

1. **No light comes on when the digitizer is turned on.**
   Make sure your digitizer is connected to your computer and plugged into a power source.

2. **The Add/Remove Hardware Wizard appears on your screen.**
   Click the "Cancel" button and close the ScanWizard Industry scanning software. Disconnect the Hi-Speed USB cable from your computer, and refer to the installation instructions in this document.

3. **When trying to scan, an error message appears on your screen that reads, "Can't Find Scanners".**
   Make sure your digitizer is connected to your computer and plugged in to a power source (see "Connecting the Digitizer" in the "Assembling Your Film Digitizer" section).

   Uninstall and reinstall the ScanWizard Industry software.

4. **After clicking "Scan," a blank screen appears.**
   Uninstall and reinstall the ScanWizard Industry software.

5. **When trying to scan, an error message appears on your screen that reads, "Code -204, Scanning lamp or image sensor circuit failure. Please don't select fast preview or draft scan!"**

   This error message appears when the luminance of lamps is insufficient or surpassed.

   Click OK first; then contact the professional technician for the further help.

Specifications

Type	Sheet feed film digitizer
Image Sensor	CCD
Light Source	LED (Light Emitting Diode)
Scanning Modes	Grayscale in a single scanning pass
	8-bit grayscale (Approx. 256 shades of gray) 16-bit grayscale (Approx. 65,536 shades of gray)
Resolution	2400 dpi
Scanning Area	14" x 52" (355.6 mm x 1320.8 mm)
Film Size	Min: 2.5" x 2.5" (63.5 mm x 63.5 mm) Max: 14" x 52" (355.6 mm x 1320.8 mm)
Lamp Life	1,00,000 times at 300 dpi scan cycle
Product Life Cycle	100,000 scans or 5 years
Interface	Hi-Speed USB (USB 2.0)
Dimensions (L x W x H)	10.2" x 18.7" x 9.3" (260 mm x 474 mm x 235 mm)
Weight	19.82 lbs. (9 kg)
Voltage	AC 100V to 240V, 47-63 Hz 1.5A Max (Input)
Power Consumption	54.9 W (Max)
Environment	Operating temperature: 50° to 104°F (10° to 40°C) Relative humidity: 20% to 85% Storage temperature: 14° to 140°F (-10° to 60°C) Relative humidity: 20% to 95%

Important
Specifications, software bundles, and accessories are subject to change without notice. Not responsible for typographic errors.